UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,979	07/10/2003	Sadao Yashiro	1081.1179	1258

21171 7590 02/21/2007 STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005	**EXAMINER** HUYNH, THU V

ART UNIT	PAPER NUMBER
2178	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 November 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: RCE filed on 11/13/06 to application filed

on 07/10/03, which has foreign priority filed on 07/30/02.

2. Claims 1-2, 6-10, 14-18 are currently amended.

3. Claims 1-18 are pending in the case. Claims 1, 9-10, 16 and 18 are independent claims.

4. All rejections in the previous office action have been withdrawn as necessitated by the

amendment.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claim 2 is rejected under 35 U.S.C. 102(e) as being anticipated by <u>Jakopac</u> et al., US**

2002/0029229 A1, filed 06/29/01.

Regarding independent claim 2, Jakopac teaches:

-   dividing, by a computer, a structured document in XML format, which is composed

of tagged documents listed sequentially and ordered hierarchically, by tags, in a file

(Jakopac; fig.15; [0051]-[0052]; dividing hierarchically XML structured document by

tag elements into a file in order to insert LEVEL tags);

- converting said structured document into tagged documents in XML format that added positional information indicating a position in said structure document to said divided documents (Jakopac; fig.15; [0051]-[0052]; converting the XML structured document in by adding LEVEL tags and numeric values indicating a position in the xml structured document);

- wherein said converting comprises adding said positional information as attribute information in said tag (Jakopac; fig.15; [0051]-[0052]; numeric values are attribute of LEVEL tags).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9.   **Claims 1, 4, 6, 9, 12 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over <u>O'Neil</u> et al., US 2003/0110150 A1, priority filed 11/30/01 in view of <u>Jakopac</u> et al., US 2002/0029229 A1, filed 06/29/01 and <u>Jones</u> et al., US 2004/0205583 A1, filed 06/27/02.**

        Regarding independent claim 1, O'Neil teaches the steps of:

- dividing, by a computer, a structured document represented by XML format, which is composed of tagged documents listed sequentially and ordered hierarchically, by tags,

in a file (O'Neil, figures 2-4; [0019], [0032], [0045], [0046]; dividing hierarchically

xml structured document in fig.2 by tag elements into a file in fig.4);

- converting said structured document into tagged documents that added positional

information indicating a position in said structure document to said divided

documents, wherein said converting comprises converting the structured document to

a new structured document represented by XML format that added index and depth

information for said structured documents by means of attribute values (O'Neil,

figures 2-4; [0019], [0032], [0045], [0046]; converting the xml structured document

in fig.2 into tagged documents in fig.4 that added depth and index information

(ORDPATH information are attributes of tag elements) indicating a position in the

xml structured document);

However, O'Neil does not explicitly disclose converting the XML structured document

into another XML document and attribute values restricted by a namespace.

Jakopac teaches converting an XML structured document into another XML structrured

document that added positional information indicating a position in said structure document

(Jakopac, fig.15; [0051]-[0052]; adding level attribute tag and index information into a XML

strutrured document to indicating a position in XML structured document).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have combined Jakopac's teaching and O'Neil's teaching, since the

combination would have converted an XML document into a XML document or XML tree for

comparison of position identifiers in the XML document.

Jones teaches elements of an XML file have an associated namespace; each XML

document can use a namespace to identify the type of XML associated with the document (Jones,

[0001], [0002]).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have combined Jones' teaching of namespace into O'Neil and Jakopac's

XML document to associate a namespace to the document, since the combination would have

used the namespace for identify the type, the elements of the XML document, wherein the

namespace is commonly used as Jones' disclosed in paragraph 0002.

Regarding claim 4, which is dependent on claim 1, O'Neil teaches transferring said

tagged documents in a designated priority order (O'Neil, fig.4, [0047], transferring the divided

documents, which is specified in ORDPATH priority for reconstructing).

Regarding claim 6, which is dependent on claim 1, O'Neil teaches rearranging said

tagged documents in accordance with said positional information of said converted tagged

documents and deleting said positional information from said tagged documents to restore said

original structured document represented by XML format (O'Neil, [0047]; reconstructing the

xml document in fig.2 from the tagged documents in fig.4, wherein the ORDPATH information

does not appear in tagged documents in the reconstructed document).

Regarding independent claim 9, O'Neil teaches the steps of:

- dividing, by a computer, a structured document represented by XML format, which is composed of tagged documents listed sequentially and ordered hierarchically, by tags in a file (O'Neil, figures 2-4; [0019], [0032], [0045], [0046]; dividing xml structured document in fig.2 by tag elements into a file in fig.4);

- converting said structured document into tagged documents that added positional information indicating a position in said structure document to said divided documents (O'Neil, figures 2-4; [0019], [0032], [0045], [0046]; converting the xml structured document in fig.2 into tagged documents in fig.4 that added depth and index information (ORDPATH information) indicating a position in the xml structured document);

- rearranging said tagged documents in accordance with said positional information of said converted tagged documents (O'Neil, [0047]; reconstructing the xml document in fig.2 from the tagged documents in fig.4 based on "ORDPATH" information); and

- restoring said structured document represented by the XML format by deleting said positional information from said tagged documents (O'Neil, [0047]; reconstructing the xml document in fig.2 from the tagged documents in fig.4, wherein the ORDPATH information does not appear in tagged documents in the reconstructed document).

- wherein said converting comprises converting the structured document to a new structured document represented by XML format that added index and depth information for said structured documents by means of attribute values (O'Neil, fig.4; "ORDPATH" information are attributes of tag elements).

However, O'Neil does not explicitly disclose converting the XML structured document into another XML document and attribute values restricted by a namespace.

Jakopac teaches converting an XML structured document into another XML structrured document that added positional information indicating a position in said structure document (Jakopac, fig.15; [0051]-[0052]; adding level attribute tag and index information into a XML strutrured document to indicating a position in XML structured document).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Jakopac's teaching and O'Neil's teaching, since the combination would have converted an XML document into a XML document or XML tree for comparison of position identifiers in the XML document.

Jones teaches elements of an XML file have an associated namespace; each XML document can use a namespace to identify the type of XML associated with the document (Jones, [0001], [0002]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Jones' teaching of namespace into O'Neil and Jakopac's XML document to associate a namespace to the document, since the combination would have used the namespace for identify the type, the elements of the XML document, wherein the namespace is commonly used as Jones' disclosed in paragraph 0002.

Regarding claim 12, which is dependent on claim 9, O'Neil teaches transferring said tagged documents in a designated priority order (O'Neil, fig.4, transferring the divided documents in fig.4, which is specified ORDPATH priority for reconstructing).

Claims 16-18 are for computer program (O'Neil, [0023]) performing the method of claims 1, 6 and 9 respectively and are rejected under the same rational.

8.   **Claims 2, 7, 10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over <u>O'Neil</u> et al., US 2003/0110150 A1, priority filed 11/30/01 in view of <u>Jakopac</u> et al., US 2002/0029229 A1, filed 06/29/01.**

Regarding independent claim 2, O'Neil teaches:

- dividing, by a computer, a structured document in XML format, which is composed of tagged documents listed sequentially and ordered hierarchically, by tags, in a file (O'Neil, figures 2-4; [0019], [0032], [0045], [0046]; dividing hierarchically xml structured document in fig.2 by tag elements into a file in fig.4);

- converting said structured document into tagged documents represented by XML format that added positional information indicating a position in said structure document to said divided documents (O'Neil, figures 2-4; [0019], [0032], [0045], [0046]; converting the xml structured document in fig.2 into tagged documents in fig.4 that added depth and index information (ORDPATH information) indicating a position in the xml structured document);

- wherein said converting comprises adding said positional information as attribute information in said tag (O'Neil, fig.4; "ORDPATH" information are attributes of tag elements).

However, O'Neil does not explicitly teach converting the XML structured document into another XML document.

Jakopac teaches converting an XML structured document into another XML structrured document that added positional information indicating a position in said structure document (Jakopac, fig.15; [0051]-[0052]; adding level attribute tag and index information into a XML strutrured document to indicating a position in XML structured document).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Jakopac's teaching and O'Neil's teaching, since the combination would have converted an XML document into a XML document or XML tree for comparison of position identifiers in the XML document.

Regarding claim 7, which is dependent on claim 2, O'Neil teaches extracting said positional information from said converted tagged documents and rearranging said tagged documents in accordance with said positional information; and deleting said position information from said tagged documents to restore said original structured document represented by XML format (O'Neil, [0047]; reconstructing the xml document in fig.2 from the tagged documents in fig.4 based on "ORDPATH" information, wherein the ORDPATH information does not appear in tagged documents in the reconstructed document).

Regarding independent claim 10, O'Neil teaches:

-   dividing, by a computer, a structured document represented by XML format, which is composed of tagged documents listed sequentially and ordered hierarchically, by tags

in a file (O'Neil, figures 2-4; [0019], [0032], [0045], [0046]; dividing xml structured document in fig.2 by tag elements into a file in fig.4);

- converting said structured document into tagged documents that added positional information indicating a position in said structure document to said divided documents (O'Neil, figures 2-4; [0019], [0032], [0045], [0046]; converting the xml structured document in fig.2 into tagged documents in fig.4 that added depth and index information (ORDPATH information) indicating a position in the xml structured document);

- rearranging said tagged documents in accordance with said positional information of said converted tagged documents (O'Neil, [0047]; reconstructing the xml document in fig.2 from the tagged documents in fig.4 based on "ORDPATH" information); and

- restoring said structured document represented by the XML format by deleting said positional information from said tagged documents (O'Neil, [0047]; reconstructing the xml document in fig.2 from the tagged documents in fig.4, wherein the ORDPATH information does not appear in tagged documents in the reconstructed document).

- wherein said converting comprises adding said positional information as attribute information in said tag (O'Neil, fig.4; "ORDPATH" information are attributes of tag elements).

However, O'Neil does not explicitly teaches converting the XML structured document into another XML document.

Jakopac teaches converting an XML structured document into another XML structrured

document that added positional information indicating a position in said structure document (Jakopac, fig.15; [0051]-[0052]; adding level attribute tag and index information into a XML strutrured document to indicating a position in XML structured document).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Jakopac's teaching and O'Neil's teaching, since the combination would have converted an XML document into a XML document or XML tree for comparison of position identifiers in the XML document.

Regarding claim 14, which is dependent on claim 10, O'Neil teaches wherein said restoring step comprises the steps of: extracting said positional information from said converted tagged documents and resorting said tagged document in accordance with said positional information; and deleting said positional information from said tagged document to restore said original structured document represented by XML format (O'Neil, [0047]; reconstructing the xml document in fig.2 based on "ORDPATH" information from the tagged documents in fig.4, wherein the ORDPATH information does not appear in tagged documents in the reconstructed document).

9.   **Claims 3, 8, 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neil in view of Jakopac as applied to claims 2 and 10 above, and further in view of Jones et al., US 2004/0205583 A1, filed 06/27/02.**

Regarding claim 3, which is dependent on claim 2, O'Neil teaches converting comprises converting the structured document to a new structured document that added index and depth

information for said documents by means of attribute values (O'Neil, figures 2-4; [0019], [0032],

[0045], [0046]; converting the xml structured document in fig.2 into tagged documents in fig.4

that added depth and index information (ORDPATH information) indicating a position in the

xml structured document). However, O'Neil does not explicitly disclose attribute values

restricted by a namespace.

Jones teaches elements of an XML file have an associated namespace; each XML

document can use a namespace to identify the type of XML associated with the document (Jones,

[0001], [0002]).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have combined Jones' teaching of namespace into O'Neil's XML

document to associate a namespace to the document, since the combination would have used the

namespace for identify the type, the elements of the XML document, wherein the namespace is

commonly used as Jones' disclosed in paragraph 0002.

Regarding claim 8, which is dependent on claim 3, O'Neil teaches rearranging said

tagged documents in the line direction of the document, in accordance with said indexes of said

converted tagged documents; and ordering said tagged documents hierarchically, in accordance

with said depth information of said tagged documents to restore said original structured

document represented by XML format (O'Neil, [0047]; reconstructing the xml document in fig.2

from the tagged documents in fig.4 based on "ORDPATH" information, wherein the ORDPATH

information does not appear in tagged documents in the reconstructed document).

Regarding claim 11, which is dependent on claim 10, O'Neil teaches converting step

comprises a step of converting the document to a new structured document that added index and

depth information for said documents by means of attribute values (O'Neil, figures 2-4; [0019],

[0032], [0045], [0046]; converting the xml structured document in fig.2 into tagged documents in

fig.4 that added depth and index information (ORDPATH information) indicating a position in

the xml structured document). However, O'Neil does not explicitly disclose attribute values

restricted by a namespace.

Jones teaches elements of an XML file have an associated namespace; each XML

document can use a namespace to identify the type of XML associated with the document (Jones,

[0001], [0002]).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have combined Jones' teaching of namespace into O'Neil's XML

document to associate a namespace to the document, since the combination would have used the

namespace for identify the type, the elements of the XML document, wherein the namespace is

commonly used as Jones' disclosed in paragraph 0002.

Regarding claim 15, which is dependent on claim 11, O'Neil teaches the steps of:

resorting said tagged documents in the line direction of the document, in accordance with said

indexes of said converted tagged documents; ordering said tagged documents hierarchically, in

accordance with said depth information of said tagged documents to restore said original

structured document represented by XML format (O'Neil, [0047]; reconstructing the xml

document in fig.2 based on "ORDPATH" information from the tagged documents in fig.4,

wherein the ORDPATH information does not appear in tagged documents in the reconstructed

document).

10.   Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over

O'Neil in view of Jones as applied to claims 1 and 9 as explained above, and further in view

of Kanie et al., US 2002/0002567 A1, filed 01/18/01.

Regarding claim 5, which is dependent on claim 1, O'Neil teaches dividing the

document by said tags (O'Neil, figures 2-4; [0019], [0032], [0045], [0046]; dividing xml

structured document in fig.2 by tag elements). O'Neil teaches updating or changing the xml

structured document in fig.2 by inserting nodes (O'Neil, [0049], [0059]). However, O'Neil does

not explicitly disclose extracting differential information relating to an original structured

document and an updated structured document.

Kanie teaches extracting differential information relating to an original structured

document and an updated structured document (Kanie, abstract, [0050], [0052]).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have combined Kanie's teaching into O'Neil's teaching to extracting

different information relating to an original structured document and an updated structured

document, since the combination would have created a multi-version document and displaying

changes made to all version documents as disclosed by Kanie as well as converted structured

documents as O'Neil disclosed, which includes original, updated or multi-version document.

Regarding claim 13, which is dependent on claim 9, O'Neil teaches and dividing the document by said tags (O'Neil, figures 2-4; [0019], [0032], [0045], [0046]; dividing xml structured document in fig.2 by tag elements); editing said tagged documents in accordance with the positional information of said converted tagged documents in said original structured document (O'Neil, [0047]; editing said tagged documents in fig.4 to reconstruct the xml document in fig.2 based on "ORDPATH" information). O'Neil teaches updating or changing the xml structured document in fig.2 by inserting nodes (O'Neil, [0049], [0059]). However, O'Neil does not explicitly disclose extracting differential information relating to an original structured document and an updated structured document.

Kanie teaches extracting differential information relating to an original structured document and an updated structured document (Kanie, abstract, [0050], [0052]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Kanie's teaching into O'Neil's teaching to extracting different information relating to an original structured document and an updated structured document, since the combination would have created a multi-version document and displaying changes made to all version documents as disclosed by Kanie as well as converted structured documents as O'Neil disclosed, which includes original, updated or multi-version document.

Response to Arguments

11.   Applicant's arguments filed on 11/13/06 have been fully considered but they are not persuasive.

Applicant argues that "a conversion of a document in XML format into another document also in XML format is not taught by the cited art, alone or in combination. By contrast, O'Neil merely teaches converting a XML document into a tree structured document ... The Document Object Model (DOM) tree taught by O'Neil, cited by the Examiner, is not in XML format" (Remarks, page 8, second and third paragraphs).

However, Jakopac teaches converting an XML structured document into another XML structrured document that added positional information indicating a position in said structure document as explained in the rejection above.

Applicant argues that "there is no reasonable chance of success or incentive to modify O'Neil with Jones and Kanie" (Remarks, page 8, paragraphs 4-7).

This is not persuasive. O'Neil teaches converting XML document by identify element type in the XML document and reconstructing the XML document. Jones teaches each XML document can use a namespace to identify the element types and attribute names in the XML and wherein a namespace is common used in XML document. Therefore, the combination would have used the namespace for identify the type, the elements of the XML document. Kanie teaches extracting differential information relating to an original XML document and an updated XML document and displaying changes made to versions of an XML document. Therefore, the combination would have displayed changes made to versions of an XML document.

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Maeno, US 2003/0009490 A1, filed 04/02, teaches information processing method.

Hamada et al., US 2002/078105 A1, filed 01/01, teaches method for editing web document.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu V. Huynh whose telephone number is (571) 272-4126. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen S. Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thu V. Huynh
January 19, 2007